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EXAMINER

NGUYEN, THU HA T

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 06/25/2003

18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/369,776

Applicant(s)

DOI ET AL.

Examiner

Thu Ha T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-13 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Kondo et al.**, (hereinafter Kondo) U.S. Patent No. **5,586,254**.

4. As to claim 1, **Kondo** teaches the invention as claimed, including a method of controlling a network which includes network elements connected via links, and provides services, said method comprising the steps of:

creating view-configuration information based on network-configuration information with respect to each of the services such that the view-configuration information is related to the network-configuration information, said view-configuration information providing a basis for a plurality of service-specific views of the network that correspond to the respective services (col. 7 lines 34-col. 8 lines 39, col. 47 lines 63-col. 48 lines 15. Figures 1c, 6a-c show the database of map information that provides a

basis for a plurality of service-specific views of the network that correspond to the respective services); and

displaying selected one or more of the service-specific views by each view based on the view-configuration information with respect to each of the services, said each view including both or either one of physical network configuration of the network and a logical network configuration of the network (col. 20 lines 3-59, col. 48 lines 16-22. Figures 1c, 6a-c show users query database 300 to display selected one or more of the service-specific views based on physical and logical network configuration).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made that **Kondo** implicitly discloses the user enters the searching for service-specific view of network configuration, the database 300 creates service-specific view from plurality of service-specific view in the database 300 and display on the display screen (see abstract, figures 1c, 4, 6a-c) equivalent to the step of creating view-configuration information, said view-configuration information providing a basis for a plurality of service-specific views of the network that correspond to the respective services and displaying selected one or more of the service-specific views by each view based on the view-configuration information with respect to each of the services disclosed in the applicant's specification. A person of ordinary skill in the art would have recognized that **Kondo** performs the same function in substantially the same way to reach substantially the same result.

5. As to claim 2, **Kondo** teaches the invention substantially as claimed, wherein said step of creating includes the steps of:

selecting network elements and links from a network configuration represented by the network configuration information (col. 7 lines 34-col. 8 lines 39, col. 34 lines 40-60, col. 36 lines 34-65); and

creating the view-configuration information according to the selected network elements and links (col. 5 lines 37-54, col. 36 lines 66-col. 38 lines 26).

6. As to claim 3, **Kondo** teaches the invention substantially as claimed, wherein said step of creating includes the steps of:

selecting a connection from a network configuration represented by the network-configuration information (col. 7 lines 24-col. 8 lines 39); and

creating the view-configuration information according to the selected connection (col. 7 lines 24-col. 8 lines 39, col. 23 lines 24-col. 24 lines 16).

7. As to claim 4, **Kondo** teaches the invention substantially as claimed, wherein said step of creating includes the steps of:

selecting ports of network elements from a network configuration represented by the network configuration information (col. 6 lines 60-col. 7 lines 7 lines 23, col. 10 lines 21-49, col. 20 lines 33-col. 21 lines 47); and

creating the view-configuration information according to the selected ports (col. 20 lines 33-col. 21 lines 47).

8. As to claim 5, **Kondo** teaches the invention substantially as claimed, wherein said step of creating includes the steps of:

specifying attribute conditions of connections (figure 5s (1), col. 46 lines 10-20);

and

creating the view-configuration information by extracting network elements and links relating to at least one connection that matches the specified attribute conditions (figure 5s (1), col. 46 lines 10-26).

9. As to claim 6, **Kondo** teaches the invention substantially as claimed, wherein said step of creating includes the steps of:

specifying a service name (figure 9, col. 44 lines 25-col. 45 lines 4); and

creating the view-configuration information by extracting network elements and links relating to connections that provide the specified service name (figure 5s (1), col. 46 lines 10-26).

10. As to claim 7, **Kondo** teaches the invention substantially as claimed, further comprising the steps of:

providing matches between failure levels and failure labels with respect to different types of failures, the failure levels indicating significance of failures either as physical failures or as service failures (figures 1i-11l, abstract, col. 2 lines 39-col. 3 lines 59, col. 7 lines 34-64, col. 11 lines 54-62, col. 46 lines 53-62); and

displaying a failure level of a failure occurring in the network in association with the displayed view (figure 5k(l), col. 2 lines 34-col. 3 lines 21, col. 7 lines 34-64).

11. As to claim 8, **Kondo** teaches the invention substantially as claimed, further comprising the steps of:

controlling the failures by a unit of a node or a port of a node (col. 11 lines 4-col. 12 lines 18, col. 18 lines 19-col. 20 lines 20); and

selecting a failure level of a connection by finding a largest failure level along the connection, and displaying the failure level of the connection in association with the displayed view (col. 20 lines 10-59, col. 22 lines 36-col. 23 lines 8, col. 32 lines 52-65).

12. As to claim 9, **Kondo** teaches the invention substantially as claimed, further comprising a step of selecting nodes and links on the displayed physical network configuration to set a route between edges (col. 36 lines 66-col. 37 lines 14).

13. As to claim 10, **Kondo** teaches the invention substantially as claimed, wherein said step of selecting includes the steps of:

selecting the edges on the displayed physical network configuration (figures 5v (7-8)); and

setting the route between the edges by extracting nodes and links so as to use as small a number of intervening edges and links between the selected edges (col. 36 lines 66-col. 37 lines 14).

14. Claims 11-13 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over **Kondo et al.**, (hereinafter Kondo) U.S. Patent No. **5,586,254**, in view of **Carcerano et al.**, (hereinafter Carcerano) U.S. Patent No. **6,308,205**.

15. As to claim 11, **Kondo** teaches the invention substantially as claimed, including a system for controlling a network including network elements and links, said system comprising:

a database which stores network-configuration information and view-configuration information such that the view-configuration information is related to the network-configuration information (col. 6 lines 60-col. 8 lines 39, col. 47 lines 54-col. 48 lines 15. Figures 1c, 6a-c show the database of map information 300 that provides a basis for a plurality of service-specific views of the network that correspond to the respective services);

collects information on configurations of the network elements and the links as well as information on failures, and informs a change in at least one of the configurations and the failures for a purpose of said updating (abstract, figure 5k(l), col. 2 lines 34-col. 3 lines 21, col. 7 lines 34-64); and

a client which displays both or either one of the physical network configuration and the logical network configuration with respect to said client's own service by selecting one of the service-specific views that corresponds to said client's own service (col. 9 lines 66-col. 10 lines 4, col. 20 lines 3-59, col. 48 lines 16-22. Figures 1c, 6a-c

show users query database 300 to display selected one or more of the service-specific views based on physical and logical network configuration).

However, **Kondo** does not explicitly teach a service-management server which attends to registering and updating of the information stored in the database, and defines views of a physical network configuration and a logical network configuration with respect to each of the services based on the view configuration information stored in said database. **Carcerano** teaches a service-management server which attends to registering and updating of the information stored in the database, and defines views of a physical network configuration and a logical network configuration with respect to each of the services based on the view configuration information stored in said database (abstract, figures 5, 9, col. 1 lines 60-col. 2 lines 61, col. 9 lines 15-col. 10 lines 24). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of **Kondo** and **Carcerano** to have a service-management server to register and update the information stored in the database because it would have an efficient communication system that can collect, store and update the change status, configuration of devices in database.

16. As to claim 12, **Kondo** teaches the invention substantially as claimed, wherein a failure-level-conversion table that provides matches between failure levels and failure labels with respect to different types of failures, the failure levels indicating significance of failures either as physical failures or as service failures (figures 1i-11i, abstract, col. 2 lines 39-col. 3 lines 59, col. 7 lines 34-64, col. 11 lines 54-62, col. 46

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lines 53-62). However, **Kondo** does not explicitly teach network-management server. **Carcerano** teaches network-management server (figure 5). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of **Kondo and Carcerano** to have a network-management server to have the same motivation as set forth in claim 11.

17. As to claim 13, **Kondo** teaches the invention substantially as claimed, wherein said service-management server includes a connection-setting unit which controls settings of a connection between edges based on the edges, nodes, and links selected from the physical network configuration (figure 5v (7-8), col. 36 lines 66-col. 37 lines 14). However, **Kondo** does not explicitly teach service-management server in the system. **Carcerano** teaches service-management server (figure 5). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of **Kondo and Carcerano** to have a service-management server to have the same motivation as set forth in claim 11.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Ha Nguyen, whose telephone number is (703) 305-7447. The examiner can normally be reached Monday through Friday from 8:00 AM to 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SPE Ayaz R. Sheikh, can be reached at (703) 305-9648.

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

The fax number for art unit 2155 is (703) 746-7239.

Thu Ha Nguyen

June 18, 2003


HOSAIN T. ALAM
PRIMARY EXAMINER